






National Health and Nutrition Examination Survey 1999–2012 Survey Content Brochure



Key

-  Component or lab test conducted on original sample description.
-  Change from original sample description.
-  Component or lab test not conducted.

The Survey Content Brochure is a summary of the available 1999–2012 NHANES data.

Table 1. Questionnaire components of the National Health and Nutrition Examination Survey, 1999–2012



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
SP questionnaire								
Acculturation (ACQ)	12 years and older							
Allergy (AGQ)	1 year and older							
Air quality (AQQ)	16 years and older							
Balance (BAQ)	40 years and older							
Blood pressure and cholesterol (BPQ)	16 years and older							
Cardiovascular disease (CDQ)	40 years and older							
Demographic background (DMQ)	Birth and older							
Dermatology (DEQ)	6 years and older ¹				Note A			
Diabetes (DIQ)	1 year and older							
Diet behavior and nutrition (DBQ)	Birth and older							
Dietary screener module (DTQ)	2–11 years							
Dietary supplements (DSQ) and medications (RXQ)	Birth and older							
Cognitive functioning (CFQ)	60 years and older							Note B
Early childhood (ECQ)	Birth–15 years							
Health insurance (HIQ)	Birth and older	Note C						
Hearing/audiometry (AUQ)	1 year and older							
Hospital utilization and access to care (HUQ)	Birth and older							
Immunization (IMQ)	Birth and older							
Inflammatory arthritis pain (ARQ)	20–69 years							
Kidney conditions (KIQ)	20 years and older							
Medical conditions (MCQ)	1 year and older							
Miscellaneous pain (MPQ)	20 years and older							
Occupation (OCQ)	12 years and older ¹				Note D			
Oral Health (OHQ)	2 years and older ¹				Note E		Note F	
Osteoporosis (OSQ)	20 years and older							
Physical activity and physical fitness (PAQ)	2 years and older							
Physical functioning (PFQ)	1 year and older ¹						Note G	
Respiratory health and disease (RDQ)	1 year and older							

See footnotes at end of table.

Table 1. Questionnaire components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Sleep disorders (SLQ)	16 years and older							
Smoking and tobacco use (SMQ)	20 years and older							
Social support (SSQ)	60 years and older ¹				Note H			
Taste and smell (CSQ)	40 years and older							Note I
Tuberculosis (TBQ)	1 year and older ¹							Note J
Vision (VIQ)	20 years and older ¹				Note K			
Weight history (WHQ)	16 years and older							
Family questionnaire								
Demographic background (DMQ)	Birth and older							
Consumer behavior (CBQ)	Birth and older							
Food security (FSQ) ²	Birth and older							
Health insurance (HIQ)	Birth and older				Note L			
Housing characteristics (HOQ)	Birth and older							
Income (INQ)	Birth and older							
Pesticide use (PUQ)	Birth and older				Note M			
Smoking-family (SMQ)	Birth and older							
Mobile Examination Center (MEC) questionnaire								
Audio computer-assisted self-interview (ACASI)	12 years and older							
Alcohol use (ALQ)	12–19 years ¹							Note N
Conduct disorders (CDQ)	12–19 years							
Drug use (DUQ)	12–59 years ¹					Note O		
Food security (FSQ)	12–15 years							
Prostate conditions (PSQ)	Males 20 years and older	Note P			Note Q			
Pubertal maturation (PUQ)	8–19 years							
Sexual behavior (SXQ)	14–59 years ¹					Note R		
Smoking and tobacco use (SMQ)—Youth	12–19 years							
Computer-assisted personal interview (CAPI)	12 years and older							
Alcohol use (ALQ)	20 years and older ¹							Note E
Bowel health (BHQ)	20 years and older							

See footnotes at end of table.

Table 1. Questionnaire components of the National Health and Nutrition Examination Survey, 1999–2012 (Continued)



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Current health status (HSQ)	12 years and older							
Dietary screener module (DTQ)	12–69 years							
Kidney condition (KIQ)	20 years and older							
Muscle pain/creatine kinase (CKQ)	12 years and older							
Pesticide exposure (PUQ)	8 years and older							
Physical activity (PAQ)	12–15 years							
Prostate conditions (KIQ)	Males 20 years and older							
Reproductive health (RHQ)	Females 12 years and older							
Smoking and tobacco use (SMQ)—Adult	20 years and older							
Urology (KIQ)	20 years and older							
Volatile toxicants (VTQ)	1/3 sample 12 years and older							
Weight history (WHQ)	8–15 years							

¹Except where noted otherwise.

²In 2001–2010, adult and child person-level food security data was collected after the dietary recall.

Note A: Conducted with SPs ages 20–59 years.

Note B: Moved to MEC questionnaire and expanded.

Note C: Found in family questionnaire.

Note D: Conducted with SPs ages 16 years and older.

Note E: Conducted with SPs ages 18 years and older.

Note F: Conducted with SPs ages 30 years and older from 2009–2010 and one year and older from 2011–2012.

Note G: Conducted with SPs ages five years and older.

Note H: Conducted with SPs ages 40 years and older.

Note I: Started in 2012.

Note J: Conducted with SPs ages six years and older.

Note K: Conducted with SPs ages 12 years and older.

Note L: Found in SP questionnaire.

Note M: Found in MEC interview.

Note N: Conducted with SPs ages 12–17 years.

Note O: Conducted with SPs ages 12–69 years.

Note P: Found in SP questionnaire KIQ component.

Note Q: Moved to CAPI.

Note R: Conducted with SPs ages 14–69 years.

Table 2. Post exam follow-up questionnaire components of the National Health and Nutrition Examination Survey, 1999–2012



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Flexible consumer behavior (FCBS) phone follow-up module (CBQ)	1 year and older							
Hepatitis C follow-up (HCQ)	SPs with Hep C							
Prostate-specific antigen (PSA) follow-up	Males 40 years and older with high results ¹				Note A			

¹Except where noted otherwise.

Note A: Conducted with males 40–70 years.

Table 3. Examination components of the National Health and Nutrition Examination Survey, 1999–2012



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Arthritis body measures	20–69 years							
Audiometry	1/2 sample 20–69 years ¹					Note A		
Balance	1/2 sample 40–69 years ¹		Note B					
Bioelectrical impedance analysis	8–49 years							
Blood pressure	8 years and older							
Body measurements	Birth and older							Note C
Cognitive function	60 years and older							
Cardiovascular (CV) fitness	12–49 years ¹				Note D			
Dermatology	20–59 years							
Dietary	Birth and older					Note E		
Dietary supplement	Birth and older						Note F	
Dual energy x-ray absorptiometry								
Body composition	8 years and older ¹	Note G			Note H			Note I
Bone density—hip and spine	8 years and older							
Food frequency	2 years and older				Note J			
Grip test	6 years and older							
Lower extremity disease								
Peripheral neuropathy	40 years and older							
Peripheral vascular disease	40 years and older							
Mental health	8–39 years							
Attention Deficit Hyperactivity Disorder (ADHD)—Youth	Parent of 8–15 years		Note K					
Anxiety—Youth	8–19 years							
Conduct disorders—Youth	Parent of 8–15 years		Note K					
Depression—Youth	8–19 years		Note K					
Eating disorders—Youth	8–19 years		Note K					
Elimination disorders—Youth	Parent of 8–11 years		Note K					
Panic disorder—Youth	8–19 years							
Depression—Adult	1/2 sample 20–39 years ¹					Note L		

See footnotes at end of table.

**Table 3. Examination components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)**



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Generalized anxiety—Adult	1/2 sample 20–39 years							
Panic disorder—Adult	1/2 sample 20–39 years							
Ophthalmology								
Retinal photo	40 years and older							
Visual fields	40 years and older							
Oral health	2 years and older				Note M		Note N	Note O
Physical activity monitor	6 years and older							Note P
Physical functioning								
8 ft. timed walk	50 years and older	Note K						
20 ft. timed walk	50 years and older							
Isokinetic	50 years and older							
Physician exam	Birth and older							
Respiratory health								
Exhaled nitric oxide	6–79 years							
Spirometry	6–79 years							
Taste and smell	40 years and older							Note Q
Tuberculin skin test	1 year and older ¹							Note R
Vision	12 years and older							

¹Except where noted otherwise.

Note A: Target ages are varied by year.

Note B: Increased to full sample, 40 years and older.

Note C: Sagittal abdominal diameter was added for SPs eight years and older; skinfolds were dropped in 2011 and added in 2012 for children 3–15 years.

Note D: Conducted with the afternoon/evening SPs.

Note E: In 2002, new interview system implemented; all SPs asked to complete a second recall by phone.

Note F: A second recall by phone.

Note G: Age range for females was 18 years and older.

Note H: Conducted with SPs ages 8–69 years.

Note I: Conducted with SPs ages 8–59 years.

Note J: Collected by mail.

Note K: Started in 2000.

Note L: Ages 12 years and older with full sample using PHQ–9 screener.

Note M: Changed from comprehensive dentist based exam to a simplified oral health screening for SPs five years and older.

Note N: Changed from a simplified health screening to a more comprehensive exam done by a dental hygienist.

Note O: Conducted by a dentist and sample is one year and older.

Note P: Ages three years and older in 2012.

Note Q: Started in 2012.

Note R: Conducted with SPs ages six years and older.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2012



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Acrylamide	3 years and older ¹					Note A		
Albumin*	6 years and older						Note B	
Albumin (home urine)								
Apolipoprotein (B)	1/2 sample 12 years and older				Note C			
Arsenic*	1/3 sample 6 years and older							
Bone alkaline phosphatase	8 years and older ¹			Note D				
BV/trichomonas	Females 14–49 years							
Cadmium	1 year and older							
Caffeine exposure*	6 years and older							
CD4/CD8	18–49 years/HIV+ and controls							
Celiac disease (TTG-EMA)	6 years and older							
Chemistry panel	12 years and older							
Chlamydia*	14–39 years							
Cholesterol (total)	3 years and older ¹				Note A			
High density lipoprotein (HDL)	3 years and older ¹				Note A			
Low density lipoprotein (LDL)	Subsample 3 years and older ¹				Note E			
Complete blood count	1 year and older							
Cotinine	3 years and older							
C-reactive protein (CRP)	3 years and older ¹			Note F		Note G		
Creatine phosphokinase	12 years and older						Note H	
Creatinine*	6 years and older							
Creatinine (home urine)	6 years and older							
Cryptosporidium	6–49 years	Note I						
Cytomegalovirus	1–5 years							
Dust allergens	1 year and older							
Environmental phenols	1/3 sample 6 years and older							
Erythrocyte protoporphyrin	1 year and older ¹			Note J				
Ferritin	1 year and older ¹				Note K			
Fibrinogen	40 years and older							
Folate (RBC)	3 years and older ¹				Note F			

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Folate (serum)	3 years and older ¹			Note F				
Follicle stimulating hormone/luteinizing hormone (FSH/LH)	Females 35–60 years							
Fungicides*	1/3 sample 6 years and older ¹	Note L						
Glucose	12 years and older							
Glycohemoglobin	12 years and older							
Gonorrhea*	14–39 years							
Halogenated phenolic compounds/Environmental pesticides*	1/3 sample 6 years and older ¹	Note L						
Helicobacter pylori	3 years and older	Note I						
Hepatitis antiHBs	2–5 years							
Hepatitis A, B, C, D	6 years and older					Note M		
Herbicides: substituted ureas and others	1/3 sample 6 years and older ¹	Note L						
Herpes 1 and 2 antibody	14–49 years							
HLA-B27 (inf ammatory arthritis)	20–69 years						Note N	
Homocysteine	3 years and older ¹				Note O			
Human immunodeficiency virus (HIV) antibody	18–49 years						Note P	
Human papillomavirus (HPV) (oral rinse)	14–69 years							
Human papillomavirus (HPV) (serum)	14–59 years			Note Q				
Human papillomavirus (HPV) (swab)	Females 14–59 years			Note Q				
Hydroxylated polychlorinated biphenyls	1/3 sample 12 years and older							
Immunoglobulin E-allergens	1 year and older							
Insulin/C-peptide	Subsample 12 years and older				Note R			
Iodine*	1/3 sample 6 years and older ¹	Note S				Note S		
Iron	1 year and older			Note T				
Latex	12–59 years	Note I						
Lead	1 year and older							
Lead dust	Households with 1–5 years							
Lp(a) (Lipoprotein(a))	Subsample 12 years and older				Note U			
Measles/varicella/rubella	6–49 years						Note V	

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Mercury	1–5 years, females 16–49 years ¹					Note F		
Mercury (hair)	1–5 years, females 16–49 years	Note I						
Mercury*	Females 16–49 years ¹					Note W		
Metals*	1/3 sample 6 years and older							
Methicillin resistant staphylococcus aureus (MRSA)	1 year and older							
Methylmalonic acid	3 years and older ¹							Note O
NAL*	6 years and older							
Non-dioxin-like polychlorinated biphenyls	1/3 sample 12 years and older							
N-teleopeptide* (NTX)	8 years and older							
Oral glucose tolerance (OGTT)	Subsample 12 years and older					Note C		
Organophosphate insecticides*	1/3 sample 6 years and older ¹	Note L						
Osmolality*	6 years and older							
Parathyroid hormone	6 years and older							
Perchlorate/thiocyanate/nitrates*	6 years and older ¹					Note X		
Perchlorate (water)	1/2 sample 12 years and older							
Pesticides*								
Organochlorine*	1/3 sample 12 years and older							
Other*	1/3 sample 6 years and older ¹	Note L						
Pyrethroid*	1/3 sample 6 years and older ¹		Note Y					
Phthalates	1/3 sample 6 years and older							
Phytoestrogens*	1/3 sample 6 years and older							
Polyaromatic hydrocarbons* (PAH)	1/3 sample 6 years and older							
Polybrominated diphenyl ethers	1/3 sample 12 years and older							
Polychlorinated and polybrominated dibenzo-p-dioxins, dibenzo-furans, coplanar and mono-ortho-substituted biphenyls	1/3 sample 12 years and older							
Polyfluorinated compounds	1/3 sample 12 years and older ¹	Note Z						
Polyunsaturated fatty acids	3–11 years, a.m. SPs 12 years and older				Note AA			
Prostate specific antigen (PSA)	Males 40 years and older							

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)



Component	Sample description	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012
Selenium/copper/zinc	3–11 years ¹	Note BB		Note CC				Note DD
Surplus sera	6 years and older					Note EE		
Syphilis	18–49 years							
Testosterone	6 years and older							
Thyroid function testing	1/3 sample 12 years and older ¹					Note FF		
Total iron binding capacity (TIBC)/transferrin saturation	1 year and older ¹			Note T				
Toxaphenes	1/3 sample 12 years and older							
Toxoplasma	6–49 years	Note Z						
Trans fatty acids	3–11 years, a.m. SPs 12 years and older							
Transferrin receptor	1–5 years, females 12–49 years							
Triglycerides	Subsample 3 years and older ¹				Note E			
Tuberculosis	6 years and older							
Urine flow rate calculation*	6 years and older							
Vitamin A/E/carotenoids	3 years and older ¹			Note A				
Vitamin B6	1 year and older							
Vitamin B12	3 years and older ¹			Note F				Note O
Vitamin C	6 years and older							
Vitamin D	6 years and older ¹				Note GG			
Volatile organic compounds (VOC)	Subsample 20–59 years ¹				Note HH			
Volatile organic compounds (VOC) exposure monitor	Subsample 20–59 years	Note I						
Volatile organic compounds (VOC) (water)	Subsample 20–59 years ¹				Note HH			
White blood count/deoxyribonucleic acid (WBC/DNA)	20 years and older							

¹Except where noted otherwise.

*Urine

Note A: Conducted on SPs ages six years and older.

Note B: Second specimen is collected in home.

Note C: A.M. SPs only.

Note D: Conducted on SPs ages 8–49 years.

Note E: Conducted on SPs ages 12 years and older; A.M. SPs only.

Note F: Conducted on SPs ages one year and older.

Note G: Conducted on SPs ages three years and older.

Note H: Started in 2010.

Note I: Ended in 2001.

Note J: Conducted on SPs ages 3–5 years and females 12–49 years.

**Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2012
(Continued)**



Note K: Conducted on SPs ages 1–5 years and females 12–49 years.

Note L: In 1999, subsample was one-fourth of those aged 12–59 years; in 1999–2002, subsample was one-half of those aged 6–11 years.

Note M: Age range changed to 6–19 years for hepatitis A only.

Note N: Conducted in 2009 only.

Note O: Conducted on SPs ages 20 years and older.

Note P: Conducted on SPs ages 18–59 years.

Note Q: Began in 2002.

Note R: Insulin only.

Note S: Began in 2000; was a full sample in 2007–2008 only.

Note T: Age range changed to 3–5 years and females 12–59 years.

Note U: Conducted in 2005 only.

Note V: Mumps added.

Note W: Conducted on a 1/3 sample of SPs ages six years and older.

Note X: Analyzed retrospectively from surplus sera, 2001–2004; in 2005–2012, subsample was one-third of those six years and older.

Note Y: In 2001–2002, subsample was one-half of those aged 6–11 years.

Note Z: Analyzed retrospectively from surplus sera, 1999–2000.

Note AA: Analyzed retrospectively from surplus sera, 2003–2006.

Note BB: Selenium ended in 2001.

Note CC: In 2003–2004, selenium was conducted on SPs ages 40 years and older.

Note DD: Copper and zinc added.

Note EE: Reduced number of vials.

Note FF: In 2007–2008, full sample.

Note GG: Vitamin D began in 2000; in 2003–2012, vitamin D was conducted on SPs ages one year and older.

Note HH: Conducted on a 1/2 sample of SPs ages 12 years and older.

Appendix. Acronyms and abbreviations used in the National Health and Nutrition Examination Survey



ACASI	Audio computer-assisted self-interview
ADHD	Attention deficit hyperactivity disorder
BV	Bacterial vaginosis
CAPI	Computer-assisted personal interview
CD4	T lymphocyte helper cells
CDISC	National Institute of Mental Health's Computerized Diagnostic Interview Schedule for Children
CIDI	World Health Organization's Composite International Diagnostic Interview
CRP	C-reactive protein
CV fitness	Cardiovascular fitness
FCBS	Flexible Consumer Behavior Survey module
FSH/LH	Follicle stimulating hormone/luteinizing hormone
HDL	High density lipoprotein
HIV	Human immunodeficiency virus
HLA-B27	Human leukocyte antigen B27
HPV	Human papillomavirus
LDL	Low density lipoprotein
Lp(a)	Lipoprotein (a)
MEC	Mobile examination center
MRSA	Methicillin resistant staphylococcus aureus
NTX	N-telopeptides of bone type I collagen
OGTT	Oral glucose tolerance test
PAH	Polycyclic aromatic hydrocarbons
PSA	Prostate specific antigen
PTH	Parathyroid hormone
RBC	Red blood cell
SP	Survey participant
TH	Thyroxine
TIBC	Total iron binding capacity
TSH	Thyroid stimulating hormone
TTG-EMA	Anti-transglutaminase (tTG) and anti-endomysium (EMA) antibodies
VOC	Volatile organic compounds
WBC/DNA	White blood cells/deoxyribonucleic acid

NHANES tutorial website: <http://www.cdc.gov/nchs/tutorials/>

Continuous NHANES

Everything you want and need to know about analyzing continuous (1999 and later) NHANES data is now available in a web-based product. The Continuous NHANES Tutorial is designed to help users navigate through the dataset. Users can browse through different modules to gain insight into NHANES data.

Special Topics

- *NHANES Dietary Tutorial*
This tutorial walks you through the steps of conducting an analytical project from beginning to end, with examples of many common analytic procedures. Relevant dietary data information and nuances, tips, and explanations for SAS or SUDAAN programs; downloadable sample program code; and analytical guidance are organized and integrated into different modules and tasks to facilitate this learning process.
- *NHANES Environmental Chemical Data Tutorial*
This tutorial will orient you to Continuous NHANES environmental chemical data, guide you through preparing an environmental chemical analytic dataset, and explain the critical issues for the analysis of environmental chemical data. Users already familiar with Continuous NHANES data and interested in using NHANES environmental chemical data should use this tutorial. New users of NHANES data should complete the Continuous NHANES tutorial before beginning this tutorial.

Other special topics coming soon . . .

- Physical Activity and Cardiovascular Fitness
- Linked data with Centers for Medicare and Medicaid Services